

Product description

Multiband amplifiers are intended to amplify FM radio signals, TV signals in VHF (6-12 channels), UHF (21-60 channels) bands and special UHF (21-57 channels) band for MA048LC, UHF2 input.

There is a possibility to adjust the gain of the amplifier in every sub-band. The gain increases up to 10 dB by fine turning regulators (6) clockwise in every sub-band and an additional 10 dB by switching switches (7) in VHF and UHF bands.

The amplifiers can provide power (+12 V) to external equipment through one UHF input connector (3). It is turned on and off by switch (10). Power feed for external equipment has short circuit and overload protection. In normal conditions indicator (5) glows green. If short circuit and overload conditions are detected - glows red.

Amplifiers have 30 dB LTE suppression filter .

The amplifiers are intended for indoor use only.

Safety instructions

Installation of the amplifier must be done according IEC60728-11 and national safety standards.

The amplifiers are powered from mains 230 V~. This voltage is dangerous to life.

Any repairs must be done by a skilled personnel.

The amplifier is double isolated from the mains 230 V~.

To avoid the electric shock follow these instructions:

Do not remove the cover of the power supply section, without disconnecting the unit from the mains supply.

Do not plug the amplifier into the mains supply if the power cord or plug is damaged.

Do not plug the amplifier into the mains supply until all cables have been connected correctly.

The mains socket must be easily accessible.

The amplifier shall not be exposed to dripping or splashing water.

Avoid placing amplifier next to central heating components, near highly combustible materials and in areas of high humidity.

If the amplifier has been kept in cold conditions for a long time, keep it in a warm room no less than 2 hours before plugging into the mains.

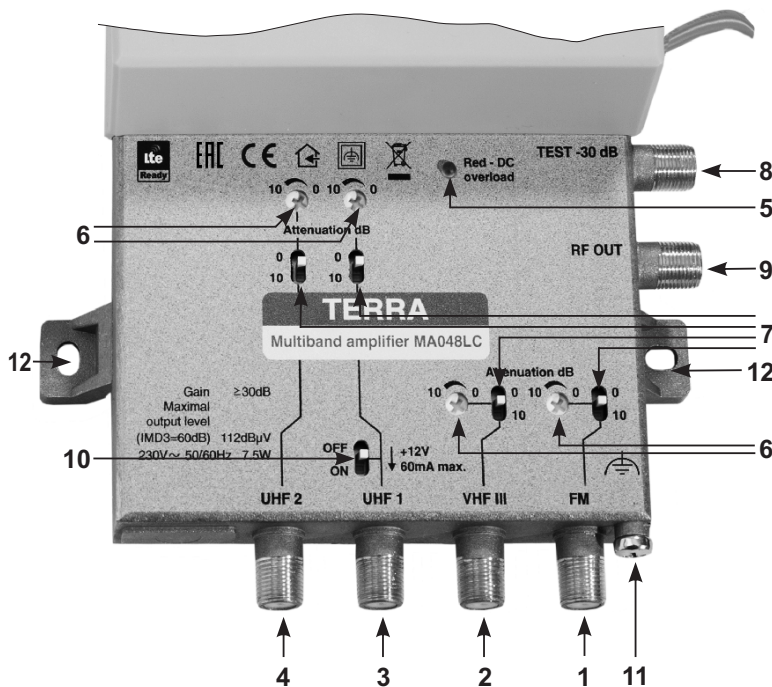
Do not insert any objects into ventilation openings.

The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, curtains.

Mount the amplifier in vertical position with RF input connectors underneath. The amplifier must be fixed with steel screws Ø 4-5 mm. The screws are not included in a package. Shields of cables must be connected to main potential equalization bus.

From top, front and bottom of installed amplifier must be at least 10 cm free space.

External view



1. FM input (MA048LC, MA049L, MA049T)
2. VHFIII input (MA048LC, MA049L, MA049T)
FM+VHFIII input (MA050L, MA050T)
3. UHF 1 input (MA048LC, MA049L, MA049T, MA050L, MA050T), DC output
4. UHF 2 input (MA048LC)
5. Internal DC and external equipment short circuit and overload indicator
6. 10 dB fine tuning gain regulators for each sub-band
7. 10 dB gain switches (10 dB attenuation for each sub-band)
8. Test point -30 dB
9. RF OUT - RF signal output connector
10. Switch to turn on/off the power feed for external equipment
11. Functional ground clamp

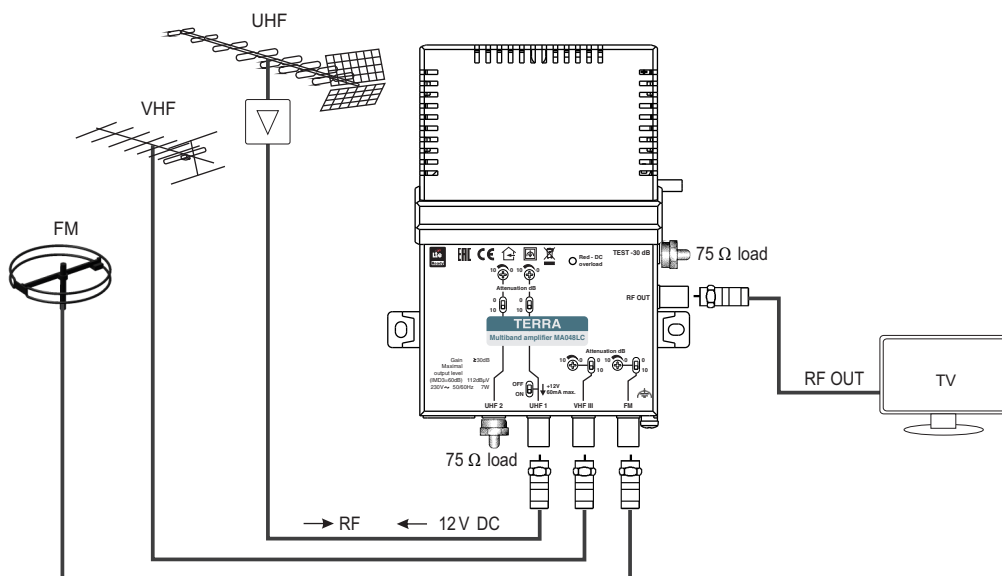
INSTALLATION INSTRUCTIONS

Read the product description and safety instruction first.

Installation of system according standard IEC60728-11 ensures safety of personnel and prevents apparatus against damaging due to lightning or other sources of overvoltage surges.

If RF IN connectors on the amplifier are not used, connect to them the 75 Ω loads.

INTERCONNECTION EXAMPLE OF ASSOCIATED APPARATUS



Technical characteristics

Type		MA048LC	MA049L	MA049T	MA050L	MA050T
Gain	FM (88-108 MHz)		30 dB			30 dB
	VHFIII (174-230 MHz)		30 dB			
	UHF (470-790 MHz)	-	34 dB		34 dB	-
	UHF (470-694 MHz)	-	-	34 dB	-	34 dB
	UHF1 (470-766 MHz)	34 dB		-		
	UHF2 (470-790 MHz)	34 dB		-		
Number of inputs		4	3	3	2	2
Noise figure, typical	VHF	< 6 dB				
	UHF (700 MHz)	< 7 dB	< 5 dB			
Maximal output level		IMD3=60 dB (DIN45004B) 115 dBμV, IMD3=60 dB 112 dBμV				
Gain control		0 ÷ - 20 dB				
Return loss		> 10 dB				
Test point		- 30 dB				
DC feeding for external		12 V 60 mA max.				
Supply voltage limit values, power consumption*		200-250 V~ 50/60 Hz 7 W				
Operating temperature range		-20° ÷ +50° C				
Dimensions/Weight (packed)		135x180x52 mm/0.72 kg				

* without external DC loading

- Caution.
- Risk of electric shock.
- This product complies with the relevant clauses of the European Directive 2002/96/EC. The unit must be recycled or discarded according to applicable local and national regulations.
- Equipment intended for indoor usage only.
- Equipment is double insulated from the mains, with functional earthing.
- Functional earthing. Connect to the main potential equalization.
- The device has integrated LTE filter.
- This product is in accordance to following norms of EU: EMC norm EN50083-2, safety norm EN IEC62368-1 and RoHS norm EN50581.
- This product is in accordance with Custom Union Technical Regulations: "Electromagnetic compatibility of technical equipment" CU TR 020/2011, "On safety of low-voltage equipment" CU TR 004/2011.